Test Facilities for Private sector by HAL Lucknow (ASERDC)

Sl. No.	Test Facilities	Specification	Hourly rate (in Rs.)
1	Hot, Cold and Altitude Chamber	• Temperature Range:-65ºC to +200ºC • Working Space: 1.0x1.0x0.8 m^3 • Altitude : 80,000 feet • Cooling rate (average) :1ºC/min • Heating rate (average) : 5ºC/min (As per MIL 810–D, JSS–55555, BS3G–100 & RTCA–DO 160C)	Rs.3584 (2015-16) Rs.4213 (2016-17) Rs.5581 (2017-18)
2	Hot, Cold, Altitude and Humidity (CATH) Test Chamber	• Capacity: 1000 ltr. (approx.) • Temp. Range: -70°C to +125°C ± 1°C • Temp. Change Rate: 5K/min during heating and cooling between -40°C to +80°C • Humidity: 20 to 95% R.H. without Thermal Load • Pressure Range: Atmospheric pressure to 10 mbar abs. • Fall Rate: 7.5 minutes from Atmospheric Pressure to 3,000 ft.	
3	Hot, Cold & Humidity Test Chamber (ESS Chamber)	• Temperature Range: -70ºC to +180ºC. • Humidity Range: 10% RH to 95% RH for 15°C to 85°C • Working Space: 1.0x1.0x1.5 m^3 (1500 ltr.) • Cooling rate (average) & Heating rate (average) : 12ºC/min (As per MIL 810–D, JSS–55555, BS3G–100 & RTCA–DO 160C)	
4	Rain Test Chamber	• Test Area: 0.8x0.8x0.8 m3 • Temp. Range: +23°C to +50°C ± 2°C • Rain Fall Rate: 280 l/m^2/hr • Port Hole: 2 Nos. (100 mm dia) (Drip as per MIL-810F, Method 506.4 Para 4.1.3)	Rs.3584 (2015-16) Rs.4213 (2016-17) Rs.5581 (2017-18)
5	Sand and Dust Chamber	• Test Area : 1.0x1.0x1.0 m^3 • Temperature Range: +23°C to +100°C • Air Speed: Procedure I: 1.5 m/s to 8.9 m/s Procedure II: 18.0 m/s to 29.0 m/s • Dust & Sand Consistency: Procedure I: 10.6±7 g/m^3 Procedure II: 0.18–3 g/m^3 (As per MIL-810F, Method 510.4 Para 4.2.2 (Procedure I) and Method 510.4 Para 4.2.3 (Procedure II))	
6	Sand and Dust Test Chamber	• Working Space: 1.0x1.0x1.0 m^3 • Viewing Window: 0.3x0.4 m^2 • Temperature Range: Ambient to +70ºC. • Humidity Range : 25% to 40% RH (during test) • Average Dust Sprayed: 25±5 grams in 5 min (As per JSS–55555)	

Sl. No.	Test Facilities	Specification	Hourly rate (in Rs.)
7	Thermal Shock Chamber	• Test Area: 0.5x0.5x0.5 m^3 • Max. Load Capacity: 50 Kg • Temp. Range: Hot Zone: +50°C to +200°C ±2°C, Rate: 12°C/min Cold Zone: -70°C to +70°C ±2°C, Rate: 6°C/min (cooling) & 2°C/min (heating)	Rs.3584 (2015-16) Rs.4213 (2016-17) Rs.5581 (2017-18)
8	Thermal Shock Test Chamber	• Temperature Range: Hot Zone : Ambient to +120ºC Cold Zone : Ambient to -65 ºC • Ramp rate (average) : 5ºC/min • Basket Size : 0.65x0.65x0.55 m^3 • Internal Space (Hot & Cold Zone each): 0.9x0.9x0.8 m^3 • Max. Load Capacity: 50 Kg (distributed load) (As per MIL 810–D, JSS–55555, BS3G–100 & RTCA–DO 160C)	
9	Salt Fog (Salt Spray) / Corrosion Test Chamber	• Tank Volume: 1000 ltr. (1600Lx700Bx800H) • Op. Temp.: Ambient to +55°C (As per MIL 810D)	
10	Hot, Cold & Humidity Test Chamber	• Temperature Range: -40ºC to +120ºC • Humidity Range : 98±2 % RH • Working Space : 1.0x1.0x1.0 m^3 • Cooling rate (average) : 1ºC/min & Heating rate (average) : 1ºC/min (As per MIL 810–D, JSS–55555, BS3G–100 & RTCA–DO 160C)	Rs.3584 (2015-16) Rs.4213 (2016-17) Rs.5581 (2017-18)
11	Humidity Chamber	• Temperature Range: +10ºC to +100ºC • Humidity Range: 98±2 % RH • Working Space: 1.0x1.0x1.0 m^3 • Cooling rate (average) : 1ºC/min & Heating rate (average) : 1ºC/min (As per MIL 810–D, JSS–55555, BS3G–100 & RTCA–DO 160C)	
12	Hot & Cold Chamber	• Temperature Range:-65ºC to +120ºC. • Working Space : 600ltr • Cooling rate (max.) : 1ºC/min • Heating rate (max.) : 1ºC/min (As per MIL 810–D, JSS–55555, BS3G–100 & RTCA–DO 160C)	
13	Hot & Cold Chamber	• Temperature Range: -65ºC to +120ºC. • Working Space : 1.0x1.0x1.0 m^3 • Cooling rate (average) : 1ºC/min & Heating rate (average) : 1ºC/min (As per MIL 810–D, JSS–55555, BS3G–100 & RTCA–DO 160C)	

Sl. No.	Test Facilities	Specification	Hourly rate (in Rs.)
14	Hot & Cold Test Chamber	• Test Area: 0.7x0.7x0.7 m3 • Max. Load Capacity: 100 Kg distributed load • Temp. Range: -65°C to +180°C ± 2°C • Heating and Cooling Rate: 2°C / min • Port Hole: 50 mm	Rs.3584 (2015-16) Rs.4213 (2016-17) Rs.5581 (2017-18)
15	Vibration / Shock Test System	• Rated Force Sine Vector : ± 1500 KgF • Frequency range : 2 Hz to 5 KHz • Max Displacement : 51.0 mm (25.4 mm half sine peak) • Acceleration :50 g (Sine & Random) 20 g (Shock) • Max Velocity : 1.8 m/s • Max static load capacity (with pneumatic ILS) : 120 Kg • Vibrator Platform Dia.: 240 mm • Shaker rotation : ± 90º • Slip Table Size: 600 mm x 600 mm (As per MIL 810–D, JSS–55555, BS3G–100 & RTCA–DO 160C)	
16	Pneumatic Shock Test Machine	• Max payload: 200 Kg • Max Acceleration: 200 g (±10%) • Pulse: 3 to 30 ms • Platform: 600mm x 600mm • Pulse Type: Half Sine / Terminal Peak Saw Tooth (As per MIL 810-D)	
17	Centrifugal Acceleration Machine	• Acceleration: 0.1 to 50 g • Effective speed: 30 to 300 rpm • Object Mass (max.): 100 Kg • Rotating Platform: 300 to 1,000 mm • Pin connections : • 0.1 A x 30 Nos. • 1 A x 40 Nos. • 5 A x 40 Nos. • 10 A x 20 Nos. • 20 A x 10 Nos. • 25A x 10 Nos. (As per MIL 810–D, JSS–55555, BS3G–100 & RTCA–DO 160C)	Rs.3584 (2015-16) Rs.4213 (2016-17) Rs.5581 (2017-18)

Note 1:

- **In addition to Hourly Rate Cost of Consumables viz. Sand, Dust, DM Water, Salt Spray will be charged extra as per requirement of testing.**

- **Final prices including cost of consumables and Service tax etc will be as per the Quote submitted by Marketing Deptt, HAL, Lucknow to vendor against their RFQ.**